Wolfgang Amadeus Mozart

Chapter 4

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Songs From the Spirit

Overview of Chapter 4

- **Musical Dreams**
- **Similarity of Mozart's Strategy to Other Musicians and Composers**
- **Mozart's Creative Process and Self-Organization Theory**
- **Implementing Mozart's Strategy**
- **Application of Mozart's Strategy to Areas Other Than Music**
    The 'Musical S.C.O.R.E.' Format
- **Guided Meditation Using Mozart's Strategy**
- **Conclusion**
- **Footnotes to Chapter 4**

Wolfgang Amadeus Mozart: Musical Dreams

For over two centuries Wolfgang Amadeus Mozart (1756-1791) has represented the pinnacle of musical genius. His abilities have seemed far above the capabilities of the average, or even the above average human being. Numerous anecdotes exist about Mozart's abilities and prowess: how he could play billiards and write down measures in between shots; how he wrote the overture to the opera Don Giovanni in two hours on the day of the performance; how he wrote down the fugue to a piece while he was composing the prelude; how he was able to note from memory the entire "Miserere" of the Sistine Chapel after only two hearings.

Yet, according to the principles of Neuro-Linguistic Programming,[1] Mozart's incredible abilities were not just some mystical, magical fluke, but rather the product of some very concrete and highly developed cognitive abilities that can be understood and even replicated by the average person. Using the modeling methods and distinctions we have been developing in this book (and a bit of 'detective work' in the style of Sherlock Holmes) we can gain some new and practical insights into Mozart's exceptional strategies.

One of the best insights into how Mozart's creative process functioned comes from a letter he wrote in 1789. In this letter Mozart describes his strategy for composing music with impressive detail, outlining four basic stages in the composition process. He begins with the following description:

> *"When I am, as it were, completely myself, entirely alone, and of good cheer - say, traveling in a carriage, or walking after a good meal, or during the night when I cannot sleep; it is on such occasions that my ideas flow best and most abundantly. Whence and how they come, I know not; nor can I force them. Those pleasures that please me I retain in memory, and am accustomed, as I have been told, to hum them to myself."* [2]

Mozart starts by describing the psychological and emotional state from which his musical inspirations sprang. He begins by saying, "When I am...completely myself..." Being 'completely oneself' bespeaks some sort of internal harmony and congruence on the identity level. There is no inner conflict or confusion about who one is. Being "entirely alone" indicates that he is not in any immediate relationship with another person. He is free to have an uninterrupted relationship with his own inner world. Mozart also specifies being "of good cheer" - being in a positive feeling state.

So, Mozart identifies three psychological conditions: being 1) congruent, 2) in an undisturbed inner relationship with himself and 3) in a positive feeling state.

He then identifies some physical conditions, giving the examples of "traveling in a carriage or walking after a good meal". These seem to imply some type of physical motion. Mozart does not just sit and think, there is some kind of accompanying movement.

Mozart continues by saying, "...it is on such occasions my ideas flow best and most abundantly". It is important to note that he does not say, "on such occasions *I make* my best music". The term "flow" indicates that the ideas arise naturally and without conscious control. It is almost as if he perceives his neurology as a kind of musical instrument that plays itself, and that by adjusting it correctly, the music will come out on its own. Mozart seems to focus on setting up the psychological and physical conditions that will allow musical ideas to emerge spontaneously and automatically.

Mozart points out that, "Whence and how they come, I know not, nor can I force them." This is clearly indicating that Mozart's creative process is largely unconscious and is a very systemic process rather than a direct cause-effect operation. Whatever conscious actions he does take do not cause or make musical notes appear in his mind in a linear fashion. Instead, Mozart's conscious actions adjust the state of his neurological system so that musical ideas are released or allowed to emerge naturally.

He then states that, "Those pleasures that please me I retain in my memory". Here he is describing a very fundamental and important relationship between "pleasure" and "memory." "Pleasure" in this case would undoubtedly relate to feelings, "memory" would relate to the recollection of sounds. It would seem that, on the micro-level, Mozart's feelings form a *synesthesia* with sound in a kind of self-reinforcing positive feedback loop or T.O.T.E. The degree to which something feels 'pleasurable' is the *test* in this loop. The *operation* involves transforming body sensations into sounds. Thus, Mozart's feelings generate internal representations of sound within his neurology. The sounds that fit with the feelings of pleasure or reinforce those feelings are naturally retained.

Mozart's basic generative process seems to be a clear example of Aristotle's basic 'pleasure principle'. Mozart's behavior and the quality of contact with his external environment, stimulate or release internal auditory representations. The qualities of the auditory representations in turn stimulate or release feelings. If the feelings stimulated by his musical ideas fit with or enhance the congruent, positive feeling state he is in, they become more strongly associated together.

Mozart next says he is, "accustomed, as I have been told, to hum them to myself."

If the feeling that is triggered by his inner music 'resonates' with the generative positive feeling, then Mozart outputs that music by humming it. Humming involves another kind of combination of feeling and sound - muscles in the throat and chest are activated to produce and externalize

sound. The fact that Mozart mentions that he has been told that he hums is a clear indication that this is actually a process that he is not consciously aware of at the time he is doing it.

In the language of NLP, we can outline the micro structure of this first, most basic stage in Mozart's strategy in the following manner: Mozart's composition process seems to begin from a positive, congruent kinesthetic feeling state combined with some kind of physical movement. Internal feelings arise from this state which produce sounds or tones through a natural overlap between the kinesthetic and auditory senses ($\mathbf{K} \longrightarrow \mathbf{A}^i$). This linking is known as a *"synesthesia."* If these sounds fit with or reinforce the positive feeling state they are hummed ($\mathbf{K}^e/\mathbf{A}^e$) and retained in memory, otherwise they are discarded.

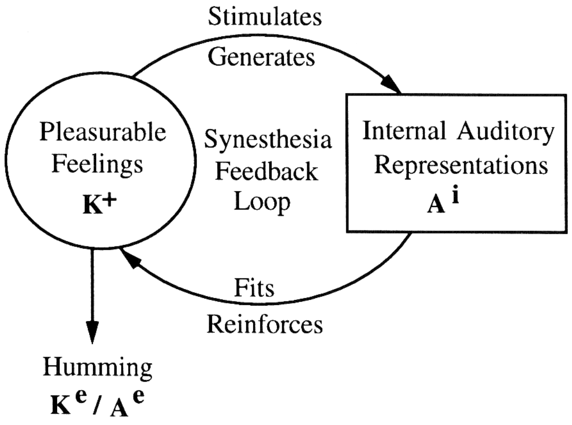


Diagram of the First Stage of Mozart's Strategy

Once enough of these basic musical patterns are gathered together, Mozart proceeds to a next stage. He writes:

> *"If I continue in this way, it soon occurs to me how I may turn this or that morsel to account, so as to make a good dish of it, that is to say, agreeably to the rules of counterpoint, to the peculiarities of the various instruments, etc."*[3]

Mozart states, "If I continue this way, it soon occurs to me how I might turn this or that morsel to account so as to make a good dish of it." The indication is that the sounds he has retained in memory form into larger chunks made of sound clusters, or "morsels." Once Mozart has gathered enough of these chunks, he jumps to another level of neurological organization in order to combine the bigger pieces together. He uses the analogy of making "a dish" out of them - a meal. While the reference to eating is clearly a metaphor, it is not out of the question to hypothesize that it might also indicate the inclusion of the senses of taste and smell into Mozart's creativity strategy via another synesthesia relationship.

At this stage Mozart has selected small groups of "musical ideas" through the feedback loop between feelings and sounds. When he has enough of these groups - when they have reached a kind of 'critical mass' - he shifts to another level of neurological organization: making a meal out of the morsels. To do this, he employs "the rules of counterpoint" and begins to take into account "the peculiarities of the various instruments." It is as if Mozart has to collect enough ideas together to reach a threshold where he can make a kind of mental 'first draft' of a composition before he can begin to apply these other filters; in the same way a writer would make a first draft before applying the rules of spelling, grammar and style.

This new level of processing involves working with bigger chunks of information and it would make sense that it necessitates the mobilization of other neurological systems than his initial creative process. Mozart mentions applying the "rules of counterpoint." Rule type thinking is most often associated with the left hemisphere of the brain (which processes language), whereas the kind of unconscious associative process Mozart described as his initial creative activity would be connected to right hemisphere type thinking. It seems reasonable to assume that, at this stage then, Mozart begins to involve the more logical 'dominant' hemisphere in his creativity strategy. His comment that it "occurs to *me* how *I* might turn this or that morsel to account" also implies the perception on Mozart's part of his own conscious participation as a causal factor in the process at this point, which would be consistent with the involvement of the left hemisphere. Thus, while Mozart cannot "force" the original intuitive flow of musical ideas, he can consciously manipulate those ideas afterward.

It is important to remember that rules in and of themselves are only as meaningful to a particular individual as the personal reference experiences upon which they are based. Mozart's use of the metaphor of creating a dish out of morsels suggests the possibility that he might literally involve the senses of taste and smell as the intuitive base for his understanding of the rules of counterpoint. It is intriguing to speculate that Mozart may have encoded the rules of counterpoint, and the unique aspects of different musical instruments in terms of tastes and smells as opposed to abstract logical structures. There is a deep natural intuition we all have about how tastes and flavors fit together. You don't eat the sherbet at the beginning of a meal; its purpose is to balance out certain flavors. "Tasteful" music may actually require the sense of taste. One can imagine Mozart thinking, "Here is a sweet piece. Should it go with something bitter or something bland?"

In summary, at this phase of his composition strategy, Mozart is evaluating and working with the music on a larger level. He is taking his basic notes and melodies and combining and evaluating them in successively 'bigger chunks' as one might combine morsels of food into a dish. While his reference to the sense of taste through this analogy to food seems most likely to be primarily for descriptive purposes, it may very well be that, for Mozart, sounds also had a synesthesia or overlap to the sense of taste.

After this stage, the composition process continues with even larger chunks.

> *"All this fires my soul, and, provided I am not disturbed, my subject enlarges itself, becomes methodized and defined, and the whole, though it be long, stands almost complete and finished in my mind, so that I can survey it, like a fine picture or a beautiful statue, at a glance. Nor do I hear in my imagination the parts successively, but I hear them, as it were, all at once (gleich alles zusammen). What a delight this is I cannot tell! All this inventing, this producing, takes place in a pleasing lively dream. Still the actual hearing of the tout ensemble is after all the best."* [4]

Mozart claims, "All this fires my soul." This implies something beyond a simple positive feeling state. This description implies the activation of much deeper and even more pervasive systems of neurology. It seems that as more and more sound groups are pieced together the positive feeling state grows bigger and more intense along with them through the synesthesia overlap process. It is as if at this stage Mozart has reached a level of organization that requires the mobilization of neurology at an identity or even spiritual level. As the level of organization of the musical composition grows successively more expansive, the commitment of neurology required to represent, retain and manipulate the music also becomes more expansive. The feelings associated with this commitment of neurology would be quite deep indeed.

Mozart writes that, "provided that I am not disturbed, my subject enlarges itself." Once again, he does not say, "I enlarge it." The implication is, "I am the channel through which it is growing." It is as if the music is writing itself through some organic process of growth.

Mozart continues by saying that the composition, "becomes methodized and defined, and the whole even though it might be long stands almost complete and finished in my mind, so I can survey it, like a fine picture or a beautiful statue, at a glance." This stage of Mozart's strategy is probably the most surprising and interesting. It is clear that a new sensory system has been activated - that of vision. This is Mozart's first reference to the visual representational system. Mozart is implying that an auditory to visual synesthesia has developed, so that the combined sounds overlap to create a single constructed visual image representing the entire groups of sound blocks (**A—>V**^{c}). This image does not appear to be in the form of musical notes, but rather something more abstract like a painting.

It is relatively self-evident that each of the senses is able to process and represent information in a way that is unique from the others. Each sensory representational system has certain strengths in its ability to organize and evaluate our experience. Taste is really good for balancing things and putting them together. The visual representational system can hold many different kinds of information together simultaneously in a way in which they don't interfere with each other. For example, you can look at a whole group of people and see all of the individuals simultaneously without any interference by the sight of one individual or another. But if you listened to all of those individuals talking at once, it would be overwhelming. The auditory system is not particularly good at holding a whole lot of things simultaneously. It's strengths are in sequencing, harmony, timing, etc.

So, Mozart needs to mobilize his visual system at this stage. In doing so he seems to be activating a very powerful synesthesia. He adds, "Nor do I hear in my imagination the parts successively, but I hear them... all at once." It would appear that his image overlaps onto the auditory system producing some sort of auditory gestalt for the entire composition. And, as in the previous stages, these sounds overlap back onto the kinesthetic system as a positive reinforcement.

He says, "What a delight this is I cannot tell! All this inventing, this producing, takes place in a pleasing lively dream." Mozart's synesthesia patterns are so immediate and so unconscious that the whole process proceeds like a dream state (which also typically include many synesthesias) and requires no conscious effort. Once the process is started, it mobilizes so much of the nervous system that it continues by itself without any need for conscious prompting. It starts to take on a life of its own - like a dream.

This emphasizes the fact that it is the mental strategy that is the most important element of creative ability as opposed to conscious effort or inspiration. Once a strategy has become completely installed and automated, the program can run on its own without conscious interference. Mozart gives further testament to the elegance of this unconscious mental circuitry when he writes:

> *"What has thus been produced I do not easily forget, and this is perhaps the best gift I have my Divine Maker to thank for."* [5]

Mozart states that, "What has thus been produced I do not easily forget." Here Mozart refers to his celebrated auditory memory, indicating that it is primarily an inborn natural "gift" from his "Divine Maker." Yet, if one takes into consideration all of the overlaps the music had made by this point with the other senses during the three stages of the composing process - including constant connections to very positive feelings and onto the single visual image (and even potentially onto the sense of taste) - it is not so surprising that these sounds would be difficult to forget. When something is hooked into other sensory representations, these connections leave their traces all over. It seems obvious that if you feel something, hear it, taste it, and see it, you would probably have to work rather hard to forget it! If you are sensing it in every part of your neurology where is it going to go? If you just hear it, it might be easier to forget. But when you have this incredible system of synesthesias, the music is so fully represented that it would seem to become almost holographic - so that every part of it contains every other part.

Mozart describes the final stage of his creative process in the following way:

> *"When I proceed to write down my ideas, I take out of the bag of my memory, if I may use that phrase, what has previously been collected into it in the way I have mentioned. For this reason the committing to paper is done quickly enough, for everything is, as I have said before, already finished; and it rarely differs on paper from what it was in my imagination. At this occupation I can therefore suffer myself to be disturbed; for whatever may be going on around me, I write, and even talk, but only of fowls and geese, or of Gretel or Barbel, or some such matters."* [6]

Mozart comments that, "When I proceed to write down my ideas, I take out of the bag of my memory...what has previously been collected into it in the way I have mentioned" Evidently, he "collects" musical ideas into the "bag" of his memory through the strategy of continually 'chunking up' - of using different parts of his nervous system to organize successively bigger and bigger 'chunks' or clusters of internal representations of music. Specific sounds represent the relationship between clusters of body sensations that make up his feeling state. Rules, or potentially tastes ("morsels" and "dishes"), represent the relationship between clusters of sounds. Vision represents the relationship between his musical "morsels" and "dishes". He keeps shifting representational systems in order to organize successively larger clusters of representations.

Because he has systematically chunked up in this way, retrieval is the function of simply reversing the process and chunking back down. To get to the individual pieces again Mozart just reverses the direction of the chunking process with which he organized the whole. He claims, "For this reason the committing to paper is done quickly enough, for...[it is] already finished and it rarely differs on paper from what it was in my imagination."

It is only at this final stage that the translation of the composition to the typical musical notes and symbols occurs. And since the gestalt is already there, this too does not require much effort. We could speculate that this translation to musical notation is probably a visual to visual mapping - a correspondence between the abstract constructed image and remembered counterparts of standard musical notation. If this is indeed the case, we can see how it would be possible for him to be making this translation while starting on another piece of music. The first couple of stages of his composition strategy seem to require primarily the kinesthetic and auditory senses which are free to do something new while the visual to visual mapping is taking place.

In fact, Mozart says, "At this occupation I can therefore suffer myself to be disturbed." Clearly, then, this is a different process from the one Mozart uses to create in which he needs to be "entirely alone." It requires much less of a commitment of neurology. He has one kind of picture and he is translating it into another kind of picture. As a result, his ears and his feelings and his tongue and nose are free to do something else. When you think of how well he was able to sort out and employ his representational systems, it is not so surprising that he was able to be writing down one piece at the same time as he was composing the next one. The visual system can be involved in writing down one composition

while feelings and sounds are mobilized to start the next one.

He says, "I write, and even talk, but only of fowls and geese, or of Gretel or Barbel, or some such matters." The implication of this would appear to be that if the subject becomes too engaging, he has to start to commit too much of his neurology to the conversation and it begins to impinge on those neural circuits which have been devoted to transcribing the composition in his imagination.

In summary, we can describe Mozart's creative process in terms of the interweaving of a micro-strategy and a macro-strategy. The micro-strategy has to do with the successive connecting together of the senses in synesthesias. And the macro-strategy has to do with this chunking up process in order to encode larger and larger clusters of musical "ideas." Each successively larger 'chunk' involves the commitment of deeper and more pervasive neurological structures and seems to elevate the process to another 'neurological' level. Once Mozart has reached the highest and widest level of chunking (seeing an hearing the whole composition before him as a single entity), he chunks it back down again until he reaches the level of individual notes.

At the macro level, Mozart's strategy for creation is the inverse of Aristotle's strategy for analysis and induction and Holmes's strategy for observation and deduction. Both Aristotle and Holmes began with "rather confused masses" of information which they initially chunked down into more specific details and elements. Then they chunked back up from the details to infer or reconstruct the 'bigger picture'.

Mozart's strategy was more like Disney's cycle between Dreamer and Realist. Mozart and Disney would assemble together chunks of experience, primarily generated through synesthesias between the senses, until they were able to "see how every piece of business would be put." They would then chunk this larger vision back down into either a musical score or a 'storyboard'.

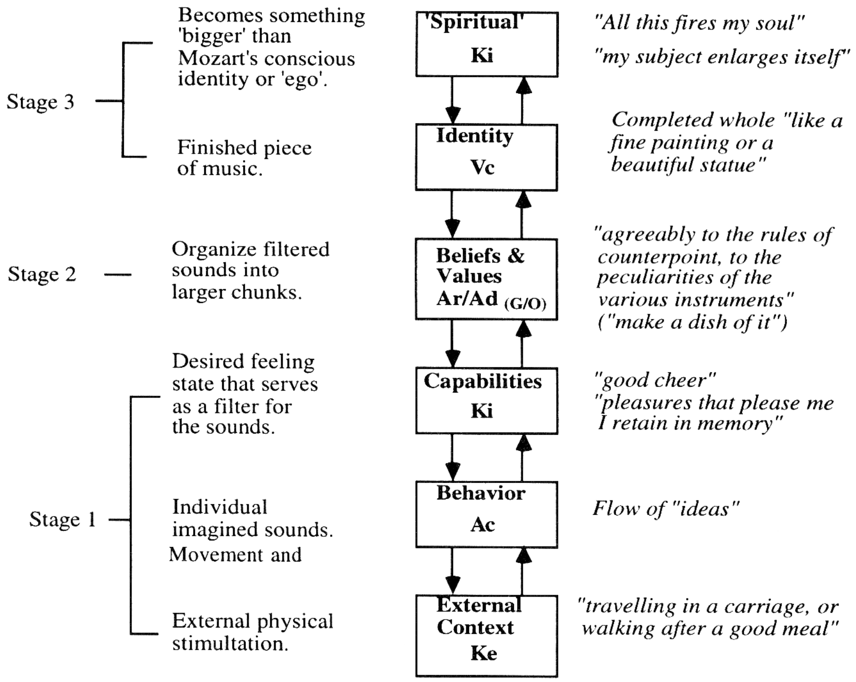
We can outline Mozart's creative process through the following steps:

1. The systemic interplay between Mozart's internal state, pattern of physical movement and stimulation from his environment create the conditions in which musical chunks or ideas are generated or released. Mozart's internal state ($\mathbf{K}^i$) and the physical and environmental stimulation ($\mathbf{K}^e$) are encoded primarily in terms of feelings and movement. Musical ideas in the form of constructed auditory representations ($\mathbf{A}^c$) are produced through a process of synesthesia and filtered in relationship to their "fit" with pleasurable feelings.

2. Clusters of sounds and musical ideas ("morsels") are organized into larger structures ("dishes") by subjecting them to rules of counterpoint and associating them with the peculiarities of various musical instruments ($\mathbf{A}^r$). It is at this stage that the music is evaluated by filtering it in accordance with beliefs and values related to musical structure and "taste," implying the activation of left hemisphere processes. The reference structures for the rules of counterpoint and the unique attributes of the various musical instruments are provided metaphorically, and perhaps literally, through the association of sound clusters with food and potentially qualities of taste and smell (**G/O**).

3. The "dish" begins to take on a life or identity of its own, transcending Mozart's sense of self and requiring no more conscious intervention. A completed whole emerges through a dreamlike state as a kind of vision ($\mathbf{V}^c$) that represents the gestalt of the entire composition. At this stage the visual representational seems to play a key role, but synesthesias with feelings ($\mathbf{K}^i$ - "fires my soul" "what a delight") and sound ($\mathbf{A}^c$ - "I hear it all at once") are essential to mobilize the neurology necessary to produce the gestalt.

4. The final stage of writing down the composition is a function of reversing the chunking process and unfolding or decoding what has been enfolded or encoded together through the previous three stages. The transcription of the multi-sensory musical gestalt most likely occurs through the mapping of elements of the abstract constructed visual image ($\mathbf{V}^c$) to the standard musical notational system held in memory ($\mathbf{V}^r$).


Stage 3
Becomes something 'bigger' than Mozart's conscious identity or 'ego'.
'Spiritual' Ki
"All this fires my soul"
"my subject enlarges itself"
Finished piece of music.
Identity Vc
Completed whole "like a fine painting or a beautiful statue"
Stage 2
Organize filtered sounds into larger chunks.
Beliefs & Values Ar/Ad (G/O)
"agreeably to the rules of counterpoint, to the peculiarities of the various instruments" ("make a dish of it")
Stage 1
Desired feeling state that serves as a filter for the sounds.
Capabilities Ki
"good cheer" "pleasures that please me I retain in memory"
Individual imagined sounds.
Behavior Ac
Flow of "ideas"
Movement and External physical stimultation.
External Context Ke
"travelling in a carriage, or walking after a good meal"

Stages and Levels of Mozart's Strategy

On the level of meta strategy, one of the most fascinating things about Mozart's process is the degree to which he so clearly distinguishes the various stages and levels of creativity according to different senses and metaphors. For example, Mozart's reference to "making a dish" at the second stage of his composition process implies the micro-strategy of taste and smell, but it also implies the use of the metaphor of a meal for a musical composition as a macro-strategy. His reference to painting and sculpture at the third stage of his composition process not only indicates the addition of a different sense in the micro-strategy, but the metaphor also introduces a different set of relationships at the level of macro strategy.

The kinds of relationships we pay attention to while appreciating a painting or sculpture are different from those we notice while tasting or appreciating a dish or meal. It is as if each level incorporates a different set of what Aristotle called "common sensibles." Common sensibles are qualities that are shared by all of the senses. Aristotle identified them as features such as "movement, rest, number, figure, magnitude, unity." Sound shares different kinds of commonalities with feeling and movement than it does with the sense of taste or sight.

Metaphors are one of the main mechanisms by which we apply "common sensibles." Thus, Mozart's choice of metaphors is not trivial. As a contrast, imagine if he had used the metaphor of seeing the whole composition as a well built machine; "I saw it before me like a well made clock." The metaphor is as important as the sensory system being employed because it implies certain kinds of interrelationships.

I once had the opportunity to listen to the performance of a mass composed by Mozart's father followed by Mozart's *Requiem*. There was really no comparison between the piece that Leopold Mozart wrote and his son's Requiem. Not that the elder Mozart's composition wasn't a nice piece. He was clearly familiar with all of the mechanics of how to write music. But there was not the same kind of personality, complexity nor richness in his mass that characterized his son's work. It was indeed more like a well made 'clock' than a 'painting' - technically flawless but lacking the richness of identity and spirit of his son's Requiem. You could tell that the younger Mozart's Requiem was like a painting. The pieces of the composition fit together with a kind of nonlinear coherence that a painting would have.

Mozart's creativity strategy is more akin to the process people go through when they fall in love than a technical process of analysis and criticism. In fact, Mozart once described the meta strategy for the whole of his creative process by stating, *"I am constantly searching for two notes who love each other."*

Similarity of Mozart's Strategy to Other Musicians and Composers

Mozart is not the only famous composer who described his process for creating music in these kinds of terms. Beethoven, for instance, used language remarkably similar to Mozart's in describing his own strategy for composing:

> *"I begin to elaborate the work in its breadth, its narrowness, its height and depth, and, since I am aware of what I want to do, the underlying idea never deserts me. It rises, it grows, I hear and see the image in front of me from every angle, as if it had been cast, like a sculpture, and only the labour of writing it down remains..."*[7]

Amazingly, Beethoven's description echoes Mozart's in almost every key detail: the composition "grows"; it is "heard" and "seen" before him "like a sculpture"; and in the end, only the "labour of it writing down remains."

Similarly, composer Paul Hindemith maintained:

> *"A genuine creator...will...have the gift of seeing - illuminated in the mind's eye, as if by a flash of lightening - a complete musical form...he will have the energy, persistence and skill to bring this envisioned form into existence, so that even after months of work, not one of its details will be lost or fail to fit in to his photographic picture."* [8]

Like Mozart, Hindemith refers to the vision of "a complete musical form," although he uses the analogy of a photographic picture as opposed to a painting or statue. Since photography did not exist in the times of Mozart or Beethoven it is difficult to assess if the artistic implications of painting

and sculpture are essential, or if Mozart and Beethoven would have shifted to more modern metaphors.

What is clear is that the visual form of the music is not that of standard musical notation but of a more abstract quality. Pulitzer prize winning symphony composer Michael Colgrass described the role these kind of synesthesias and special imagery played in his creative process in the following way:

> *"Once you set up your idea of the material, you kind of sit back. You look at it. You think about it, and you feel it. And then, if you're sensitive to it, it starts to tell you what it wants to do. It's like it starts to move in a certain direction. If you're sensitive, you'll just kind of say, 'um humh,' and then you'll just start writing it down...*
>
> *When I'm like this, in an important moment, writing it down, I'm feeling it, I'm hearing it, and I'm seeing the mathematical subdivisions of the rhythms that have to be written down...*
>
> *Sometimes people say, 'How do you write pieces?' And I'll say, 'You build them.' You do write with a pencil, that's the mark you make. But you do build, you construct. And as these pieces start to go in, then they suggest other pieces.*
>
> *And a certain detachment begins to take place too. Because as you detach yourself, you are getting a gestalt view of what's going on here, see. Because this piece is going to last twenty minutes but you've got to be able to see it, 'Swooch,' as finished. You've got to be able to see from here to here. You can't sing through twenty minutes every time you want to check something here at the seventeenth minute. So you've got to be able to go, 'Zzzuh,' like that and take in the emotional runnings, things, feelings and events. Events and*

> *feelings that have to take place fast. So that you can get to this point and not have to waste a lot of time...*
>
> *These are amorphous images that I am speaking of now, not the eighth notes or sixteenth notes or b-flats. It's kind of like a painting, but not exactly. It's an abstract image."* [9]

Elements of Mozart's strategy appear to be important for almost all aspects of music, not simply creativity and composition. I once assisted in a study of the strategies of exceptional music students conducted at two of the most prestigious music schools in England.[10] These students had demonstrated ability in skills such as memory for rhythm and pitch, and chord discrimination tasks. Like Mozart, the exceptional students used a great deal of synesthesia, transforming sounds into feelings and imagery to represent the music as a whole. They would visualize sounds generally not as notes, but as shapes and colors, like an abstract painting which they referred to as "musical mappings" or "graphs". They were able to use this type of abstract imagery to remember unusual or extended melodies and rhythms.

It is interesting to note that Mozart's strategy is not limited to the composition of classical music either. Some of the most successful and prolific composers of modern popular music have also mentioned a dreamlike, largely unconscious, quality described by Mozart as part of their creative process. For example, in an interview with *Rolling Stone* magazine in 1983, popular music composer and performer Michael Jackson reported:

> *"I wake up from dreams and go, 'Wow, put this down on paper.' You hear the words, everything is there in front of your face...That's why I hate to take credit for songs I've written. I feel that somewhere, someplace, it's been done and I'm just a courier bringing it into the world."*

Paul McCartney, another famous popular music composer (who has also written classical pieces) mentioned a similar experience in a television interview. He described how, when he was a member of the Beatles, he dreamt that he heard the Rolling Stones, a rival musical group, performing a song that he was quite jealous of. When he awoke, he realized that they had never actually recorded or performed the song that he had dreamt about, so he wrote it down and recorded it. It was one of the groups' most successful hits - *Yesterday*.

Key aspects of Mozart's strategy also appear in the creative processes of non-musicians. For instance, Albert Einstein's perception of mathematical equations for representing his theories strongly echoes Mozart's description of the role of musical notation in his creative process.

> *"No really productive man thinks in such a paper fashion...[The theory of relativity] did not grow out of any manipulations of axioms...These thoughts did not come in any verbal formulation. I very rarely think in words at all. A thought comes, and I may try to express it in words afterward.*
>
> *"The words or the language, as they are written or spoken, do not seem to play any role in my mechanism of thought. The psychical entities which seem to serve as elements in thought are certain signs and more or less clear images which can be 'voluntarily' reproduced and combined...The above mentioned elements are, in my case, of visual and some of muscular type. Conventional words or other signs have to be sought for laboriously only in a secondary stage, when the mentioned associative play is sufficiently established and can be reproduced at will."* [11]

Perhaps the most important thing to be learned from Mozart's strategy in relationship to the process of composing, performing and appreciating music is the significance of synesthesias between the senses and the constant anchoring of the whole process to positive feelings. The actual knowledge of musical notation only comes into play at the very end of the strategy. Yet, ironically, it is this knowledge that always seems to be taught to music students first. And unfortunately it is often done in a way that interferes with the connection of sound patterns to positive feelings and creative synesthesias to the other senses. Perhaps if we revised the sequence and structures with which we teach music students to match the strategy of Mozart, we would have more potential Mozarts in the field of music today.

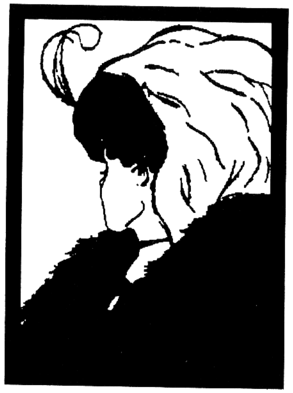
Mozart's Creative Process and Self-Organization Theory

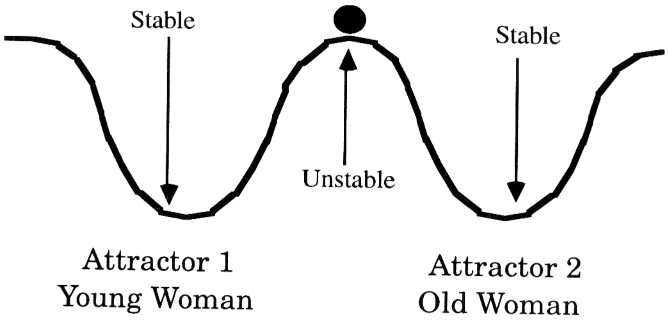
'Self-organization' theory[12] relates to the process of order formation in complex dynamic systems. Paradoxically, it arose from the study of chaos. Scientists studying chaos (the absence of order) noticed that when enough complexly interacting elements were brought together, rather than create chaos, order seemed to 'spontaneously' form as a result of the interaction.

In many ways, Mozart's description of his creative process seems to reflect this phenomenon of self-organization. Mozart wrote about how his musical ideas "flowed" without conscious effort and that his process of composing took place "in a pleasing lively dream." Other composers also talk about how their music seems to arise on it's own, appear in dreams or otherwise 'write itself'. The implication is that somehow the music 'organizes itself' within the nervous system of the musician or composer.

In our nervous system, self-organizing processes are thought to be the result of associative connections between our nerve cells. These associations are thought to be established and elaborated according to the 'Hebb' rule. Hebb was a Nobel prize winning neurologist that discovered if two interconnected neurons in a similar state respond simultaneously, their connection is strengthened. In other words, rather than a 'beaten path' established by physical force, the strength of the associative connections between the parts of our brain and nervous system is determined by a kind 'rapport' between the nerve cells. This principle is deeply reflected in Mozart's comment that he was "constantly searching for two notes who love each other." (The Hebb rule may even be at the root of the basic strategy for establishing rapport in NLP, which involves the 'mirroring' of another person's behavioral or cognitive patterns.)

According to 'self-organization' theory, order in an interconnected system of elements arises around what are called 'attractors' which help to create and hold stable patterns within the system. These attractors form a kind of 'landscape' that shape and determine patterns of interaction within the system. Perceptual "attractors," for instance, are the focal point in a phenomenon around which the rest of our perceptions become organized. As an example, consider the well-known picture below. Is it an image of a young woman wearing a necklace or old woman with her head bowed?

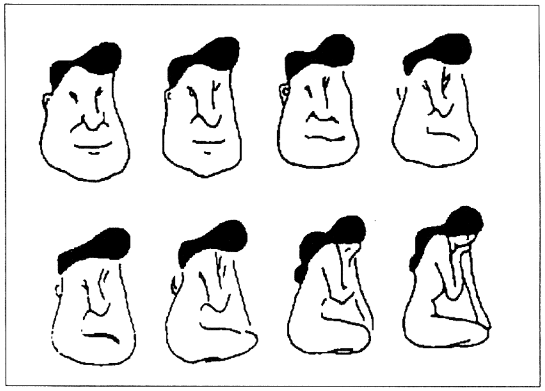




Attractor 'Landscape' of the Picture Above

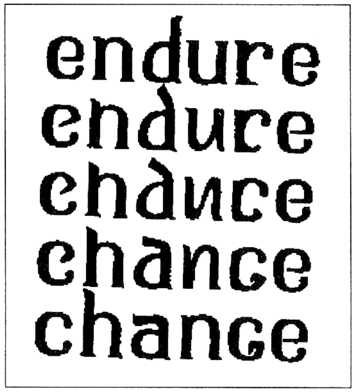
Of course, the picture itself is simply a complex combination of lines and light and dark areas. The images of the women, young or old, are not really on the paper, but rather in our minds. We "see" a "young" or "old" woman because of basic assumptions and forms deep within our own nervous systems - what Aristotle referred to as "formal causes." To move between the 'images' in the 'landscape' we need to first *destabilize* our focus on one attractor and subsequently *restabilize* around a new attractor.

Some other examples of 'attractor landscapes', related to visual and verbal 'formal causes', are shown below. The first group shows the face of man transforming or "morphing" into the body of a woman. The intermediate images become progressively more ambiguous. Again, the experience of "man's face" or "woman's body" are not in the marks on the paper but in our own nervous system (a bee or a dog would not be likely to recognize either image).



The Face of Man or the Body of a Woman?

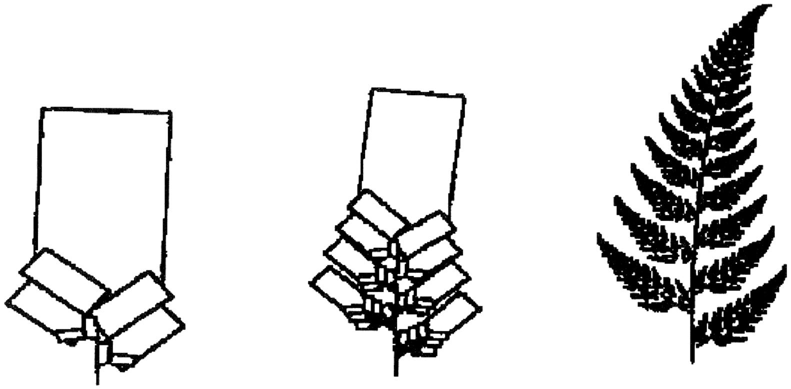
The following set of words show a transformation between the words "endure" and "change" as the two verbal 'attractors'.



“Endure” or “Change”?

Of course, attractors are not only a visual phenomenon. They occur in the senses of hearing, taste and feeling as well. In fact, music itself could be considered to be a very intricate attractor ‘landscape’, ‘destabilizing’ and ‘re-stabilizing’ our awareness; drawing out and directing the flow of attention within our internal sensory experience. What makes Mozart’s music powerful and compelling are the attractors which stimulate and mobilize patterns within our own nervous systems.

In self organization theory, order is often ‘unveiled’ by the process of *iteration*. Self organizing systems tend to reproduce their own order and patterns by applying internally generated principles and rules. Looked at from this perspective, Mozart’s music emerged organically through this type of iterative process. Mozart’s positive feeling state and pattern of movement functioned as the initial “attractors” for his auditory representational system; first drawing out internal sounds and then collecting them together in memory. These collections of sounds then become an “attractor” themselves for the next level of organization. Each stage of his creative process built upon the others until a coherent and beautiful whole was produced much like organic growth in nature (a quality that one can easily hear in Mozart’s music).



Mozart’s Strategy for Composing Music Resembles The Formation and Growth of a Living Thing Such as a Leaf

In the next section, we will explore some ways in which we can develop and encourage some of the ‘self organizing’ capabilities underlying Mozart‘s unique abilities.

Implementing Mozart's Strategy

One issue that might legitimately be raised, as we consider how to apply what we have learned about Mozart's strategy, is whether the kinds of mental processes described by Mozart and other exceptional composers and musicians are even possible to teach or transfer. It could be contended that the ability to form synesthesias and create these types of abstract visualizations of music are inborn traits or talents that are not possible for the average person to develop. It could also be maintained that Mozart's strategy was a result of years and years of practice and immersion in music which he began at a very early age.

There is certainly no contending the important influence of physiology, environment and practice in the development of exceptional abilities. The belief system of NLP, however, is that the fundamental neurological capabilities that form the basis of Mozart's strategy are latent in every human being. And that while practice and experience on the one hand and physiological make up on the other certainly influence the limit to which such abilities may be developed, these kinds of 'self-organizing' skills can be released in people of average ability in a way that greatly enhances their competence. Obviously, there will never be another person exactly the same as Mozart. There were many influences at work to produce him as a specific individual. Our goal is not to make an exact "clone" of Mozart who produces the exact same compositions of Mozart, but rather to extract key elements that can significantly enhance the performance and experience of other people.

Another objection might be raised that the amount of detail we are able to derive from Mozart's letter is not specific enough to tell us exactly "how to" think like Mozart. Certainly Mozart's letter gives only very broad hints about an undoubtedly very complex and sophisticated process. There are many missing links to be filled in. Some have even argued that the letter is a forgery. It is important to keep in mind that NLP begins from the assumption that the map is not the territory. Even if Mozart were alive today and could be interviewed in great detail, his actual neurological process would still be unconscious, invisible and so immensely complex that it would be impossible to describe. In terms of transferability it is not even desirable that such generative processes be described in minute detail. In order for them to be adapted to the many different possible types of nervous systems possible in human beings, a certain amount of flexibility must be built in.

The ultimate purpose of modeling in NLP is to produce a map that is rich in quality, with enough structure and flexibility to be of practical value to those who choose to utilize it. Once you have identified enough of the key elements of the micro and macro strategy of your model, you can start to fill in the missing pieces by inference. In other words, if I know that I have to go from point **A** to point **B**, I can use other tools to fill in the pathway to get there. Furthermore, once I have identified the general framework employed by a person like Mozart, I can fill in missing links and define the more mechanical aspects of the process by modeling other exceptional people in the area of music and composition. You can then piece the strategic details drawn from these other models together with what has been derived from Mozart in order to fill in the blanks, and create something that has very practical applications.

A beautiful example is provided by Michael Colgrass, the Pulitzer prize winning composer I quoted earlier, who developed a program to teach musical composition based on the strategy we have been exploring. With it he is able to take people as young as seven and eight years old on up to adults and teach them how to write and compose music in about forty five minutes. The following is a description of how he is able to help them develop the specific types of self organizing capabilities involved in Mozart's strategy.

“I may start warming them up by telling them to move around, change their posture and position and start making any old sounds. (I myself will often stand on my head when I’m preparing to compose.) And the room becomes cacophonous with noise from people howling and screeching and grunting, and clicking their mouths. And I ask them to think of a mark they could put on the blackboard that would represent that sound.

They don’t know how to write pitches and all that. If you were going to teach them that it would take months. So you don’t do that, you just say, ‘Make a mark that represents a sound.’ Anybody can make a mark on a blackboard. So when somebody has a sound in their mind I instruct them to hear the sound, and go to the blackboard. Then I tell them to think of the left side of the blackboard as the beginning and the right side of the blackboard as the end; the top of the blackboard as high and the bottom of the blackboard as low. And make a mark that represents your sound.

So the person goes up to the blackboard and makes a mark. Of course, you could talk about that mark for a long time. You could say, ‘Well, exactly how high or low is it?’ But you’d go nuts because there is no way of measuring it. So I say, ‘Well, we’ll let that go for a moment and approach it differently.’ If the person has made a mark that looks like a little curly-cue, I’ll ask, ‘Can you sing that?’ And he might go, ‘Buuwhuit,’ because the mark kind of went like that.

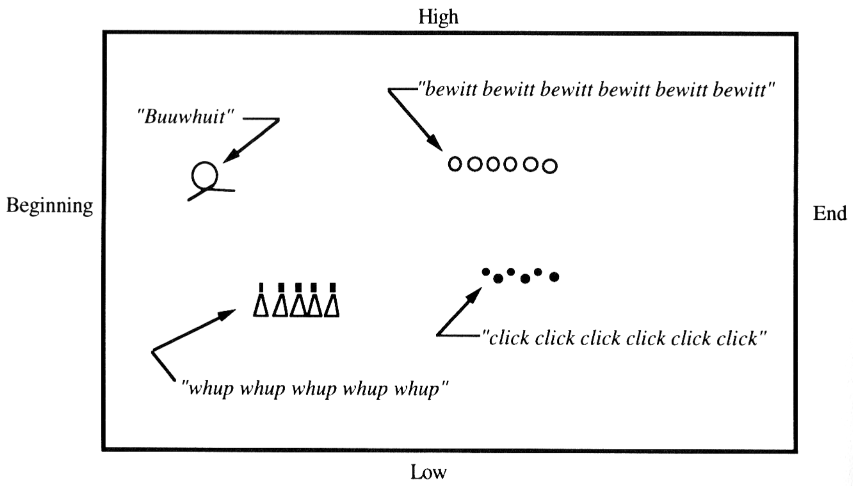
Then I’ll say, ‘Will somebody else come up here and make a mark?’ You could also have the same kid working, but it’s fun to have different people doing it. It’s a good idea to do a collective piece. So I’ll ask somebody else come up and make a mark, but now there’s one big difference. I’ll point out, ‘You already have one sound there and the second sound you’re going to make has got to be in relation to that sound, but independent of it. It’s got to come before it or over it or below it or after it. It may be quite different from it, or extremely similar to it.’

So a person says, ‘Yeah I’ve got a sound.’ And they go up there, and they might make something like, ‘Whup whup whup whup whup,’ like little inverted apostrophes or something like that.

So the first person made this ‘Buuwhuitt.’ The second person made ‘Whup whup whup whup whup’ underneath that, or just after it. Now we have two things there. Now the third person comes up and I ask him, ‘What do you want to hear? What do you think belongs there?’ He might say, ‘Well, right after that I want to hear ‘click click click click click click click click.’ By now they are seeing too. I think this is important because people often have a lot of trouble hearing. As you have pointed out, we’re more visual than auditory in North America. So, when they can see the sound, as it were, then they can hear the sound better. That’s why I go to the blackboard with it.

And so, the child hears, ‘Click click click click click click.’ So I’ll ask, ‘What mark would represent that well on the blackboard?’ Maybe he makes a big mistake, given what’s already there. Maybe he’ll draw a bunch of little circles. So I’ll ask, ‘Does everybody understand that to be ‘Click click click click click click?” And the rest of the group will say, ‘No, that’s ‘Bewitt bewitt bewitt bewitt bewitt bewitt.’ It’s great the sounds you’ll get. And so I’ll say, ‘What will make ‘Click click click click click click?” And somebody will say, ‘Well the sounds all have to be all like little dots.’ And I’ll go, ‘OK., did you hear what your colleague said, go make dots instead of circles.’

In this process, incidentally, I like them to do it. I don't ever go to the blackboard and make the marks for them. I don't tell them what to do. Instead I'll ask the group, 'Are you satisfied with what he's done?' Because in this way the whole group's learning at the same time.


High
"Buuwhuit"
"bewitt bewitt bewitt bewitt bewitt bewitt"
Beginning
End
"click click click click click click"
"whup whup whup whup whup"
Low

Example Drawings of Sounds

To help them complete the piece, I might act like a little bit of a rudder. I'll ask, 'Does anybody want any more on the piece? Is it finished?' When they're finished, I might have them discuss what they hear and see that lets them know that it was completed.

Then I ask them, 'Now how are we going to perform this?' This is very important because they have created a work now, but it hasn't come to life yet. And to understand the whole process, they've got to perform it. Now if I tell them how to perform it, then they will not have divined for themselves how a performance can take place. They will not have fully understood what the composing process is. So I say, 'Anybody got any ideas? Come on, we're gonna all make these noises together now.'

So someone might say, 'I got an idea,' and they go up to the board and they'll try it their way. One person might say, 'All of you on the left side of the room do the first song, and all of you on the right side of the room do the second song.' Somebody else might say, 'I'm going to run my finger across the board. Wherever my finger touches, everybody just sing what you see.' One kid, one time, said, 'Everybody do anything they want, whenever they want to. Look at the sounds that are there and finish when you are finished.' I thought that was a wonderful one. The piece sounded terrific when they did that. It had all kinds of parameters that the written one didn't have.

This is one way of teaching conducting. Another way is saying, 'You do this and you do that.' You basically teach it. You elicit the performance by leading them in a certain direction.

So now what they've done then is: they've heard sounds, put those sounds together in a composition by creating their own notation for it, conducted it, and performed it. In that one period of forty or fifty minutes, the past thousand years of music history has been re-created for them.

I like to point out to them, 'Now, what you have done here is exactly what a composer does, no different. Except, you have not specified exactly how high or how low the sounds are. How long, how short, how dark, how thin, how loud, how soft. A composer has notations for those and those notations can be easily learned.' I might take the mark for the 'Buuwhiip' mark and write some quick musical notes, and put the beams on

> *the tie and add a little crescendo mark or something and it looks like 'real' music then. And they see how that abstract mark can be transferred into the notation which is usually a foreign language to them. I'll go through the whole piece that way, kind of like just quickly. Then they see a whole score right in front of them, and they understand the essence of the score.*
>
> *People say, 'How do you compose music, what do you think of first, aren't you a genius to do that?' and all that sort of thing. And I like to point out to them that the process we've gone through is exactly the process a composer goes through.*
>
> *As a composer you've got to think of how to start, what to do next, and how to finish. That's what really is involved. If you can do that, you can compose. Someone might say, 'Well I don't know anything about music.' That doesn't make any difference. If you can do the process I was just describing with blocks of sound, you can compose. The learning of the musical linguistics, as it were, is just a question of time and sophistication. And it does take time and all that.*
>
> *But I've seen professional composers try and do this exercise and they don't do it very well. I've seen some non-composers that have never written a line of music go up to the blackboard and they'll be fearfully imaginative. And I'll say to them, 'I sure wish you would learn notation and start studying some of this, and sit in orchestras and play an instrument and so forth because you sound like a composer to me.'* [13]

By developing a simple strategy based on principles of self-organization and the establishment of elemental synesthesias between feelings and sounds, and then sounds and pictures, Michael's students are able to write a piece of music, conduct it, score it, and perform it - in less than forty five minutes! The orchestration of the piece would come by matching the oral sounds from which the composition has been initially performed to the "peculiarities of the various instruments." For instance, you would ask, "What instrument would make a 'buuwhitt' sound?" "What instrument makes a good 'whup, whup, whup' sound?" And so on.

As Michael points out, it is only at the very end that you need to know how to break the abstract, intuitive representation down into standard notation. But that skill isn't necessary in order to begin to compose, write and conduct music in a manner similar to that employed by Mozart. I have taught this strategy many times myself and it is surprising what an eight year old can do if you give him a few simple creative tools such as these.

Michael's process is a specific way of putting many of the pieces together that we have identified in Mozart's process. Minimally it offers a child or an adult a way of experiencing the creative cycle involved in composing music that can then be refined through practice and experience. And Michael is operating without some of the powerful tools that are available to us with modern technology. It is relatively simple to imagine how one could use readily available computer technology to enhance this strategy immensely.

Most personal computers, for example, can create sounds or can be connected to music synthesizers. Programs can be easily written that would connect visual shapes, colors and locations to specific types of sounds, timbres and pitches in a manner matching Mozart's strategy. In this way, people could literally draw abstract pictures on the computer and have them played by the computer. Whole pieces could be composed and performed through this intuitive, organic approach. The computer itself could then be programmed to translate the abstract picture into formal musical notation.

Of course, in the same way that Mozart's creative strategy has been modeled, it is possible to model strategies for streamlining the ability to learn musical notation and to play musical instruments. Certainly, Mozart's prowess as a performer was as legendary as his ability to compose music. And while Mozart himself left no record giving any clues to his strategy for learning to play a musical instrument, we might gain some insight through studying the strategies of exceptional musicians of today.

For example, I was once involved in the modeling of a piano player who could immediately sight read and beautifully perform any piece of music that was placed in front of him, as if he had played it many times before. By exploring his internal strategy, we discovered that, when he was learning to play the piano, he would visualize the piano keyboard in his mind. As he was learning to sight read he would look at individual notes in their written form and would picture which of the keys on his mental keyboard was to be depressed to make that note. He would look at a particular note, and imagine which key was to go down. After a while he could look at any particular written note and see the corresponding key automatically going down on his mental keyboard. Pretty soon he could look at two or three notes at once and see the corresponding keys being depressed. He was eventually able to see the notation for whole chords and imagine the cluster of keys being depressed that made up that chord. By overlapping his mental image of the piano keyboard with the actual piano keys, he would then use his fingers to press on the keys that he saw were supposed to be depressed. He explained that, "Now when I sight-read music its very easy - it is like playing a player piano. I look at the notes, see the keys going down and I just stick my fingers in the slots."

This is a strategy based on the development of associations between an externally represented code (musical notation) and a personal internal image (the imaginary keyboard). There is then an association made from activity on the mental keyboard (notes being depressed) to the kinesthetic act of pressing the corresponding key on the actual physical keyboard.

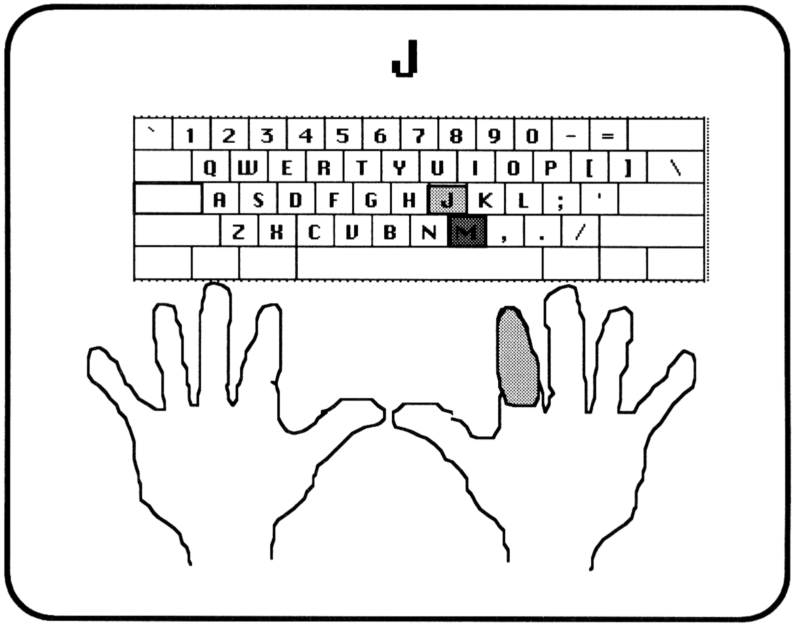
It is intriguing to note that in the study of exceptional music students that I mentioned earlier, it was discovered that students who had perfect pitch used a strategy very similar to this - but in reverse. They reported that they mentally saw piano keys go down for notes and chords when they heard music. The internal image was automatically triggered by the sound. Using the internal image as a reference they were able to determine what the exact notes were.

Thus, it would appear that sight-reading follows a strategy of: 1) see specific note; 2) picture key on imaginary keyboard; 3) move finger to corresponding position on actual keyboard; 4) produce sound. The strategy employed by individuals with perfect pitch went in the reverse direction: 1) hear sound; 2) picture key on imaginary keyboard; 3) determine specific note.

While the models who had developed this kind of strategy on their own undoubtedly had to possess a relatively high degree of motivation and had to devote some amount of time to develop these skills, modern technology can be used to streamline and enhance the development of these kinds of associations.

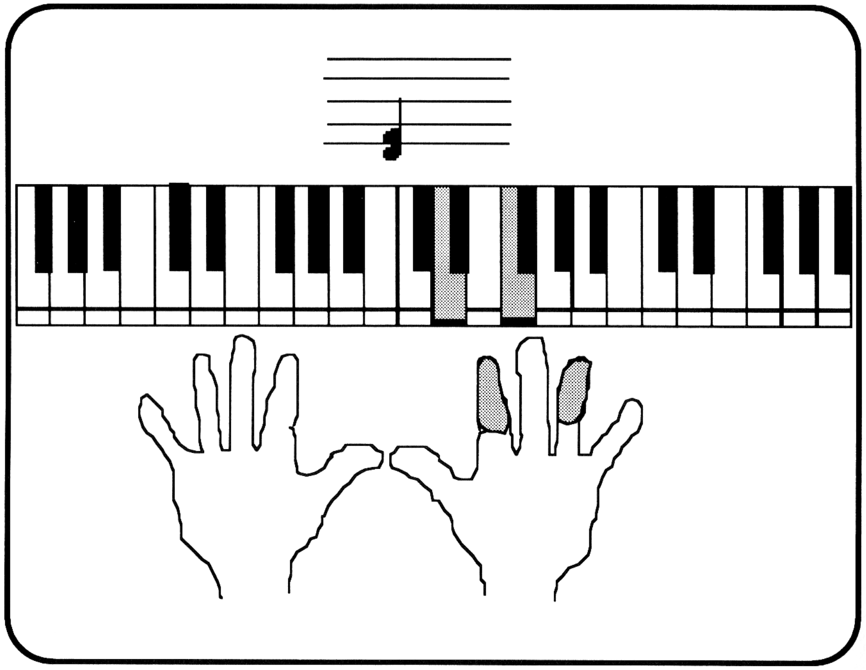
For example, I used this kind of strategy as a basis to develop a computer program to teach people to type.[14] In this program, the computer screen shows a picture of your hands and of the computer keyboard. It begins by displaying individual letters, and highlights which key on the keyboard corresponds to that letter and which finger should be used to depress that key. So you see the letter, the location on the keyboard and the finger to be used. Keeping your eyes on the computer monitor, you are to try to press the highlighted key with the indicated finger. If you hit the wrong key, that key is highlighted in a different color than the target key, so you can see where your finger is with respect to where it should be, without having to look down at the keyboard.

In order to encourage the self-organizing processes required to effectively acquire any psychomotor skill, such as typing or playing a musical instrument, you need to provide *feedback*. The problem is that the most direct way to get feedback while typing or learning a musical instrument is to look at what you fingers are doing. Unfortunately this is disruptive and inefficient because 1) you have to look away from the written source for what you are trying to type or play, and 2) it does not facilitate the development of an internal representation of the keyboard or musical instrument. This computer program encourages you to fumble around kinesthetically by continuing to press the keys with your fingers until you see that you hit the right key. It keeps showing you the relationship between the target key, the finger to use and the key you've actually hit. As a result you naturally build an image of the keyboard and develop the synesthesia between eye and hand without having to look down. As your skill increases, individual letters are extended to form words, sentences and finally whole paragraphs.



Sample Screen From 'Typing Strategy' Program

Obviously, a similar kind of program could be developed to help people to learn the strategy to sight-read for musical instruments. Notes could be displayed on the computer screen together with a replica of the instrument to be played and a pair of hands. Individual notes could be shown and the key, string or valve required to produce that note could be highlighted in some way along with the finger(s) to be used. The actual instrument could be connected or wired to the computer in some way so that it was able to ascertain which note you were actually playing in order to complete the feedback loop.



Example of Music 'Sight Reading' Program

By discovering and understanding the basic skills behind complex behaviors we can create tools that enhance the development of those skills in ways that can be easy and even fun.

Another computer tool I have developed for enhancing 'strategies of genius' is the *NeuroLink*, a type of biofeedback device which simultaneously monitors and records activity in heart rate, body temperature and the brain hemispheres via patterns of electrical activity on the left and right sides of the body. Mozart's Strategy acknowledges the powerful influence of one's physiolgical state in creativity. The NeuroLink comes with software which combines these key measurements of nervous system activity with artificial intelligence and NLP methods and principles to help people achieve optimal states of health, learning and personal performance.

Application of Mozart's Strategy to Areas Other Than Music

One of the most valuable things about using NLP to model strategies such as Mozart's, is that the basic form of the strategy may be transferred to areas other than those for which it was initially developed. For instance, Mozart's strategy has interesting applications beyond music. It is essentially a strategy for applying the natural self-organizing capabilities of our nervous system to systemically represent and organize complex patterns of interaction. On its most fundamental level, Mozart's strategy mobilizes vast amounts of neurology and stimulates unconscious processing. These can be extremely valuable for any number of applications involving creativity or problem solving.

Many people listen to music when they are working on a problem. It is quite possible that on a physiological level, music even activates neural circuits that become available to facilitate or participate in creativity or problem solving. It is even quite possible that Mozart himself, as has been suggested by some of his biographers, worked out his personal problems through his music. Certainly Mozart was familiar with thinking in metaphors.

I have already mentioned the similarity between Mozart's creative process and that described by Albert Einstein. Our study of Walt Disney also turned up a highly systematic use of synesthesia and chunking. In fact, Disney's *Fantasia* is an exquisite example of mapping music into imagery. I have also modeled and described a similar strategy, involving metaphorical visualization, employed by the teacher and healer Moshe Feldenkrais to work with patients who had physical problems.[15]

Certainly, many people use music as a stimulus and a metaphor to help with problem solving. For instance, I know of a chief executive officer of one of the largest automobile manufacturers in Europe who had two hobbies; neurophysiology and music. Whenever he was confronted with a difficult organizational problem he would create a metaphor for the problem in terms of these other two fields. For example, he might think of people as notes, teams as chords, projects as musical pieces, etc. Then he would try to "hear" the problem in the terms of the music. Were there discordant notes? Were there two chords in harmony? And so on.

One formulation of Mozart's strategy into a more general method for involving unconscious processes and stimulating lateral thinking during creativity and problem solving could be stated as follows:

1) Think of a problem you are trying to solve or an outcome you want to achieve. Introspectively pay attention to how you are currently thinking and feeling about the problem or outcome and which choices you perceive available to you.
2) Put yourself into a positive feeling that represents your desired state for the issue you are working with.
3) Allow the feeling to transform into sounds that fit with or enhance your desired state feeling.
4) 'Hear' the problem as a kind of sound. It may initially interfere with the desired state 'music'.
5) Allow the sounds representing the desired state and problem to transform into tastes and smells that you might associate with food.
6) Find 'counterpoints' for the problem sounds and taste (i.e., sounds and tastes from the desired state music and flavors that balance or offset the problem sounds).
7) Make the sounds and tastes into imagery (shape, color, brightness etc.) and see how they interact as a whole. Allow the image to form an abstract representation that metaphorically embodies a solution to the problem.
8) Return to your typical conscious thinking process in relation to the problem and notice how it has changed.

The 'Musical S.C.O.R.E.' Format

This basic problem solving format can be enriched and enhanced through a process I call the "Musical S.C.O.R.E." which applies the principles and structure of the S.C.O.R.E. model that we applied in the chapter on Aristotle. There is a charming and intended association in the letters defining the S.C.O.R.E. model. An actual 'musical score' is the arrangement of a musical composition including the notes to be performed and the parts for the different musical instruments or voices. The term "score" is also used for the description of a dance composition in choreographic notation.

In the "Musical S.C.O.R.E." process we will be making use of both of these implications. It is a problem solving method that incorporates many of Mozart's creative processes.

1. Think of a problem you are trying to solve or an outcome you want to achieve. Notice how you are currently thinking and feeling about the problem or outcome and which choices you perceive available to you.

2. Lay out four locations in a sequence representing the cause, symptom, outcome and desired effect related to the problem. Resources will be explored in a later stage of the exercise. Recall that:

   Symptoms are the most noticeable and conscious aspects of a presenting problem or problem state.

   Causes are the underlying elements responsible for creating and maintaining the symptoms. They are usually less obvious than the symptoms they produce.

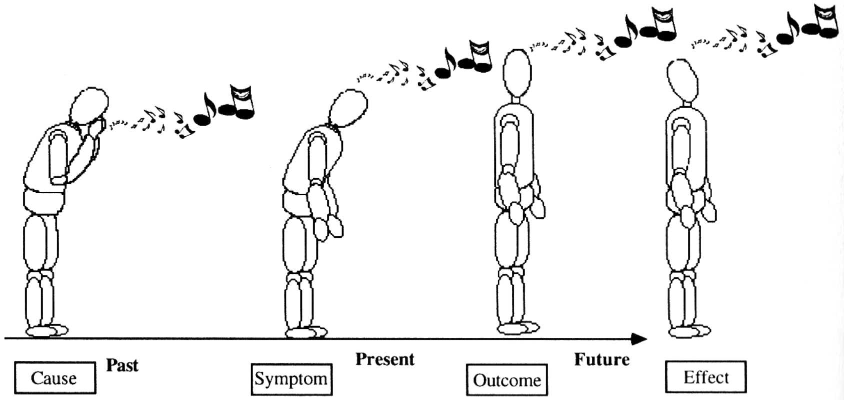
   Outcomes are the particular goals or desired states that would take the place of the symptoms.

Resources are the underlying elements responsible for removing the causes of the symptoms and for manifesting and maintaining the desired outcomes.

Effects are the longer term results of achieving a particular outcome.

3. Physically associate into the experience and internal state related to each location. Pay special attention to the pattern of movement associated with each location, intensifying it a little to help build your sense of the physiology associated with each element.

4. Let each pattern of movement become a sound. Listen to the sound and notice how well it fits the feeling. Allow the feeling/movement/sound to become a taste. Notice if it is sweet, bitter, acidic, etc. Finally, let the feeling/movement/sound/taste become an abstract or symbolic visual image, so that each location is fully represented in all the senses.



Pay special attention to the effect location. It is important to build the representation of this space as strongly as possible so that it becomes an "attractor" or "final cause" for the whole S.C.O.R.E.

6. Starting in the 'cause' location, walk slowly through entire sequence, feeling, hearing and seeing the sensory experiences of each location. Notice how they fit together, change and intermingle at each step. Listen for 'counterpoints' to the problem sounds and taste (i.e., sounds and tastes from the desired state music and flavors that balance or offset the problem sounds). Pay attention to the 'story' that is being told. Repeat this process several times until there is a sense of a single movement from cause to desired effect.

7. Go to a physical meta position and let your body lead you to a special movement representing the appropriate resource to bring into the S.C.O.R.E. sequence. Allow this movement to also become a sound, a taste and into imagery (shape, color, brightness etc.) and see how they interact as a whole. Allow the image to form an abstract representation that metaphorically embodies a solution to the problem.

8. Starting in the cause location, incorporate the resource movement/sound/taste/image into the other sensory representations associated with that location. Walk through the other locations adding the resource to the other movements until you have reached the effect space.

9. Repeat the movement through cause, symptom, outcome and effect until you have transformed it into a kind of song, 'dance', meal, painting and story that metaphorically embodies a solution to the problem.

Guided Meditation Using Mozart's Strategy

Another way to implement the elements of Mozart's strategy is in the form of a meditation. This helps to enhance the spontaneous and dreamlike quality described by Mozart. I have often applied Mozart's strategy in this way to my own work in the areas of creativity and health.[16] The following is a transcript of an example of a guided meditation for creativity based on Mozart's process.

> *Take a moment and relax. Put your body in a balanced and symmetrical posture. As Mozart said, 'Be completely yourself'. For a moment, you don't have to worry about anything or anybody else. You can just be alone with yourself.*
>
> *Allow your attention to focus on an outcome you would like to achieve or a problem you are trying to solve. As you do, focus on your desired state. What would you really like to get from solving that problem or reaching that goal? What is it that seems to draw you towards it as you imagine resolving this issue? Begin to fully sense and feel the positive desired effects and benefits you would like to achieve.*
>
> *As you become strongly in touch with your desired state, be aware of what is going on inside of you. Notice how these positive feelings affect your inner body sensations or your physiology. When you really experience this good feeling, does it change your breathing? In what way does it affect your posture? Is there a kind of feeling of circulation or warmth? What kind of subtle movements are you aware of? Allow your body to move with the sensations you feel, solidifying and exaggerating them.*

> *Now, imagine that each part of your body was a kind of a musical instrument that could make a different kind of sound. Imagine that your heart could make a certain kind of a sound, your lungs another. Fantasize that the muscles in your shoulders, your tongue, your hands, your stomach, your throat, your eyes and your spine are each musical instruments that make their own special kinds of sounds.*
>
> *And as you experience that special feeling associated with your desired state, listen to which of these instruments are involved in producing that feeling. What sounds do they each generate as they create this positive feeling? What kind of inner sounds come from your heart? Your brain? Your stomach?*
>
> *Is there a certain rhythm to this feeling? Is it fast or slow? Is it high pitched? Are there some parts of your inner body's musical instruments that play louder? Perhaps your heart plays a bit louder than your throat. Just listen to your body. Listen to the natural music that is already there. The kind of music that expresses this special feeling and the relationship with which it is associated.*
>
> *Gently play with the sounds, tones and melodies that arise from your body and notice what kind of sounds deepen the feeling that you have. What kind of inner music seems to fit with and expand that feeling?*
>
> *As you let your body's music continue to build, begin to imagine that these sounds, and this music could become tastes and smells. As you hear the music coming from your heart, realize that you can smell it and taste it as well. As you inhale, act as if you could breath in that special sensation and not only hear it and feel it, but taste what is so special about it. What does it smell like? What does it taste like? Is it kind of*

bittersweet? Or light and fluffy? Perhaps it tastes like a very old and well-aged wine. How could you make a meal out of that? A movable feast?

Savor and cherish the tastes and smells that go with this feeling and with this inner music. As your body continues to move in rhythm with that feeling, and the sounds circulate in your inner ears, and the tastes really come alive on your tongue like the best meal that you have ever eaten, perhaps these tastes can almost begin to explode into colors and into vision. So that you can see this feeling, these sounds, these exquisite flavors and tastes that represent the most positive qualities of that desired state. You can almost see a painting of light dazzling and dancing with colors that really represent and deepen that feeling and those sounds and those tastes all together.

The vibrancy of the colors and shapes you see can deepen the taste and feeling. The image spreads before you like a beautiful landscape and allows you to taste even more richly and hear even more concretely and feel your desired state even more fully. So that all of your inner senses are alive with this feeling. Your breathing expresses it. Your heart expresses it. Your entire neurology expresses it. It is like a hologram of the senses that imprints that experience deeply in you.

Now begin to listen for any problems or interferences to reaching your desired state or solution. At first they may sound rough or discordant; but as you continue to listen, you can hear, feel, taste or see the ways in which to incorporate, balance, transform or absorb any unpleasant sounds into the powerful beauty of your internal music. If you want, you can allow resources and solutions in the form of other types of songs and music. Perhaps you can even hear some of Mozart's music gently drifting in and out as a guiding inspiration.

Imagine that your inner music is a kind of 'holographic' resource - a resource in which all other resources are contained. From it, confidence, capabilities and solutions seem to flow easily and naturally. As you feel, listen, taste and watch, many new choices and alternatives begin to open to you, even if you are not consciously aware of them at this time. You can trust that they will be available in the "bag of your memory" when you need them.

And then, think of what kind of unique way you could tangibly embody that hologram of resources and solutions. If you don't consciously know what they will be in reality yet, you can express them in the form of a symbol, metaphor or music as Mozart did. Maybe you would express it through a drawing or a dance or a poem. Perhaps you would simply express it with a particular posture of your body or a look in your eyes.

What is something that you could physically make that would express this feeling? What song might you sing? What drawing could you make? What is something that would come out of your own hands or your own mouth or your own neurology that would represent your desired state?

Allow the natural and powerful self-organizing capabilities of your nervous system to dream something up. Let it happen as if it were some 'pleasing lively dream.' Perhaps even in your dreams tonight some element of these special feelings, sounds, tastes or vision could be there and continue to bloom whether you are consciously thinking about them or not.

Even as you begin to become consciously aware of the room around you, this dream can continue in the back *of your mind. Feel the parts of your body touching the chair or the floor, and hear the sounds drifting through the air surrounding you, and open your eyes to see the concrete objects before you. Yet in some way, the elements of this inner sensory hologram can be reflected back to you from your external reality. Realize that you actually sense parts of that music and that dream in everyday experience. Maybe at your meal tonight you will suddenly taste something that reminds you of your inner feast. Perhaps in the eyes or the voice or the movements of someone you are with, you will be able see your vision or hear your music. Most importantly, manifest and embody it through your own creations and actions. For "the actual hearing of the tout ensemble is after all the best."*

Conclusion

Like the music he generated with it, Mozart's strategy is full of the organic richness of life. Our knowledge of its structure can not only offer fresh insights into his creations, but by filling in missing links through the study of the processes of other composers and musicians, it can help to enhance the skills and appreciation of musicians (and latent musicians) young and old. Ultimately, it can offer guidance in how to utilize all levels of our neurology, mobilizing intuition and unconscious abilities as well as conscious skill.

Footnotes to Chapter 4

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